

SEQUENCE LISTING

<110> Chen, Lieping
Bajorath, Jurgen

<120> ICOS Mutants

<130> 07039-331001

<160> 42

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<212> PRT
<213> Mus musculus

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Pro Cys Glu Ser Pro Ser His Asn Thr Asp Val Val Thr Val Leu Gln
20 25 30
Thr Asn Asp Gln Met Thr Val Ala Thr Thr Phe Thr Glu Lys Asn Thr
35 40 45
Val Gly Phe Leu Asp Tyr Pro Phe Ser Gly Thr Phe Asn Glu Ser Arg
50 55 60
Val Asn Leu Thr Ile Gln Gly Leu Arg Ala Val Asp Gly Leu Tyr Leu
65 70 75 80
Cys Val Leu Phe Val Gly Met Gly Gln Ile Tyr Val Ile Pro Glu Pro
85 90 95

<210> 2
<211> 96
<212> PRT
<213> Rattus norvegicus

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Pro Cys Glu Ala Ser Ser His Asn Thr Asp Val Val Thr Val Leu Gln
20 25 30
Thr Asn Asp Gln Val Thr Val Ala Thr Thr Phe Thr Val Lys Asn Thr
35 40 45
Leu Gly Phe Leu Asp Asp Pro Phe Ser Gly Thr Phe Asn Glu Ser Arg
50 55 60
Val Asn Leu Thr Ile Gln Gly Leu Arg Ala Ala Asp Gly Leu Tyr Phe
65 70 75 80
Cys Val Leu Phe Val Gly Met Gly Gln Ile Tyr Val Ile Pro Glu Pro
85 90 95

<210> 3
<211> 96
<212> PRT
<213> Homo sapiens

<400> 3

Val	Ala	Gln	Pro	Ala	Val	Leu	Ala	Ser	Ser	Arg	Gly	Ile	Ala	Ser	Phe
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Val	Cys	Glu	Ala	Ser	Pro	Gly	Lys	Ala	Thr	Val	Val	Thr	Val	Leu	Gln
														30	
Ala	Asp	Ser	Gln	Val	Thr	Val	Ala	Ala	Thr	Tyr	Met	Met	Gly	Asn	Glu
														45	
35															
Leu	Thr	Phe	Leu	Asp	Asp	Ser	Ile	Thr	Gly	Thr	Ser	Ser	Gly	Asn	Gln
														60	
50															
Val	Asn	Leu	Thr	Ile	Gln	Gly	Leu	Arg	Ala	Met	Asp	Gly	Leu	Tyr	Ile
														80	
65															
Cys	Val	Leu	Tyr	Leu	Gly	Ile	Gly	Gln	Ile	Tyr	Val	Ile	Pro	Glu	Pro
														95	
85															

<210> 4

<211> 96

<212> PRT

<213> Bos taurus

<400> 4

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														15	
Val	Cys	Glu	Ala	Ser	Ser	His	Lys	Ala	Thr	Val	Val	Thr	Val	Leu	Gln
														30	
Ala	Asn	Ser	Gln	Met	Thr	Val	Ala	Met	Thr	Tyr	Thr	Val	Glu	Asn	Glu
														45	
35															
Leu	Thr	Phe	Ile	Asp	Asp	Ser	Thr	Thr	Gly	Ile	Ser	His	Gly	Asn	Lys
														60	
50															
Val	Asn	Leu	Thr	Ile	Gln	Gly	Leu	Ser	Ala	Met	Asp	Gly	Leu	Tyr	Ile
														80	
65															
Cys	Val	Leu	Tyr	Val	Gly	Met	Gly	Gln	Ile	Tyr	Val	Ile	Pro	Glu	Pro
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85															

<210> 5

<211> 95

<212> PRT

<213> Mus musculus

<400> 5

Val	Gln	Pro	Leu	Val	Asp	Ser	Glu	Ser	Leu	Cys	Leu	Ala	Ala	Leu	Tyr
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														15	
Gly	Val	Asn	Asp	Val	Gly	Asn	Gly	Asn	Phe	Thr	Tyr	Gln	Pro	Gln	Phe
														30	
Arg	Ser	Asn	Ala	Glu	Phe	Asn	Cys	Asp	Gly	Asp	Phe	Asp	Asn	Glu	Thr
														45	
35															
Val	Thr	Phe	Arg	Leu	Trp	Asn	Leu	His	Val	Asn	His	Thr	Asp	Ile	Tyr
														60	
50															
Phe	Cys	Lys	Ile	Glu	Phe	Met	Tyr	Pro	Pro	Pro	Tyr	Leu	Asp	Asn	Glu
														80	
65															
Arg	Ser	Asn	Gly	Thr	Ile	Ile	His	Ile	Lys	Glu	Lys	His	Leu	Cys	
														95	
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<210> 6

<211> 95

<212> PRT

<213> Rattus norvegicus

<400> 6

Val	Gln	Pro	Leu	Val	Asp	Asn	Glu	Ser	Leu	Cys	Leu	Ala	Ala	Leu	Tyr
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Gly	Val	Asn	Asp	Val	Gly	Asn	Gly	Asn	Phe	Thr	Tyr	Gln	Pro	Gln	Phe
									20	25				30	
Arg	Pro	Asn	Val	Gly	Phe	Asn	Cys	Asp	Gly	Asn	Phe	Asp	Asn	Glu	Thr
									35	40				45	
Val	Thr	Phe	Arg	Leu	Trp	Asn	Leu	Asp	Val	Asn	His	Thr	Asp	Ile	Tyr
									50	55				60	
Phe	Cys	Lys	Ile	Glu	Val	Met	Tyr	Pro	Pro	Pro	Tyr	Leu	Asp	Asn	Glu
65									70		75			80	
Lys	Ser	Asn	Gly	Thr	Ile	Ile	His	Ile	Lys	Glu	Lys	His	Leu	Cys	
									85		90			95	

<210> 7

<211> 95

<212> PRT

<213> Bos taurus

<400> 7

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Gly	Ala	Asp	Ala	Val	Val	Asn	Gly	Asn	Phe	Ser	His	Pro	His	Gln	Phe
									20	25				30	
His	Ser	Thr	Thr	Gly	Phe	Asn	Cys	Asp	Gly	Lys	Leu	Gly	Asn	Glu	Thr
									35	40				45	
Val	Thr	Phe	Tyr	Leu	Lys	Asn	Leu	Tyr	Val	Asn	Gln	Thr	Asp	Ile	Tyr
									50	55				60	
Phe	Cys	Lys	Ile	Glu	Val	Met	Tyr	Pro	Pro	Pro	Tyr	Leu	Asp	Asn	Glu
65									70		75			80	
Lys	Ser	Asn	Gly	Thr	Ile	Ile	His	Val	Lys	Glu	Gln	His	Phe	Cys	
									85		90			95	

<210> 8

<211> 95

<212> PRT

<213> Homo sapiens

<400> 8

Val	Gln	Pro	Met	Ala	Tyr	Asp	Ala	Asn	Leu	Cys	Phe	Ser	Ala	Leu	His
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Gly	Leu	Asp	Ala	Val	Val	Tyr	Gly	Asn	Tyr	Ser	Gln	Gln	Leu	Gln	Val
									20	25				30	
Tyr	Ser	Lys	Thr	Gly	Phe	Asn	Cys	Asp	Gly	Lys	Leu	Gly	Asn	Glu	Ser
									35	40				45	
Val	Thr	Phe	Tyr	Leu	Gln	Asn	Leu	Tyr	Val	Asn	Gln	Thr	Asp	Ile	Tyr
									50	55				60	
Phe	Cys	Lys	Ile	Glu	Val	Met	Tyr	Pro	Pro	Pro	Tyr	Leu	Asp	Asn	Glu
65									70		75			80	
Lys	Ser	Asn	Gly	Thr	Ile	Ile	His	Val	Lys	Glu	Lys	His	Leu	Cys	
									85		90			95	

<210> 9

<211> 112

<212> PRT

<213> Mus musculus

<400> 9

Ala	Asp	His	Arg	Met	Phe	Ser	Phe	His	Asn	Gly	Gly	Val	Gln	Ile	Ser
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Cys	Lys	Tyr	Pro	Asp	Ile	Val	Gln	Gln	Leu	Lys	Met	Arg	Leu	Phe	Arg
					20				25					30	
Glu	Arg	Glu	Val	Leu	Cys	Glu	Leu	Thr	Lys	Thr	Lys	Gly	Ser	Gly	Asn
						35			40			45			
Ala	Val	Ser	Ile	Lys	Asn	Pro	Met	Leu	Cys	Leu	Tyr	His	Leu	Ser	Asn
						50			55			60			
Asn	Ser	Val	Ser	Phe	Phe	Leu	Asn	Asn	Pro	Asp	Ser	Ser	Gln	Gly	Ser
						65			70			75			80
Tyr	Tyr	Phe	Cys	Ser	Leu	Ser	Ile	Phe	Asp	Pro	Pro	Pro	Phe	Gln	Glu
						85			90			95			
Arg	Asn	Leu	Ser	Gly	Gly	Tyr	Leu	His	Ile	Tyr	Glu	Ser	Gln	Leu	Cys
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<210> 10

<211> 111

<212> PRT

<213> Homo sapiens

<400> 10

Ala	Asn	Tyr	Glu	Met	Phe	Ile	Phe	His	Asn	Gly	Gly	Val	Gln	Ile	Leu
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Cys	Lys	Tyr	Pro	Asp	Ile	Val	Gln	Gln	Phe	Lys	Met	Gln	Leu	Leu	Lys
					20				25					30	
Gly	Gly	Gln	Ile	Leu	Cys	Asp	Leu	Thr	Lys	Thr	Lys	Gly	Ser	Gly	Asn
						35			40			45			
Thr	Val	Ser	Ile	Lys	Ser	Leu	Lys	Phe	Cys	His	Ser	Gln	Leu	Ser	Asn
						50			55			60			
Asn	Ser	Val	Ser	Phe	Phe	Leu	Tyr	Asn	Leu	Asp	His	Ser	His	Ala	Asn
						65			70			75			80
Tyr	Tyr	Phe	Cys	Asn	Leu	Ser	Ile	Phe	Asp	Pro	Pro	Pro	Phe	Lys	Val
						85			90			95			
Thr	Leu	Thr	Gly	Gly	Tyr	Leu	His	Ile	Tyr	Glu	Ser	Gln	Leu	Cys	
						100			105			110			

<210> 11

<211> 6

<212> PRT

<213> Homo sapiens

<400> 11

Met	Tyr	Pro	Pro	Pro	Tyr
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<210> 12

<211> 199

<212> PRT

<213> Homo sapiens

<400> 12

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60

62

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22

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59

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 agcaac 66

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 agcaattgtat aggttgcaga agt 23

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<220>
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26

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<400> 36
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<210> 37
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<400> 37
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ggaggaggag aaaaaattga tagg

<210> 39
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<220>
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<400> 40
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<400> 41

DNA Sequences - 02072022

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<211> 28

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<400> 42

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